



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,554	12/28/2005	Hidekazu Mori	4670-0114PUS1	8229
2292 7590 07/28/2009 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER				
PARENDO, KEVIN A				
ART UNIT		PAPER NUMBER		
2823				
NOTIFICATION DATE		DELIVERY MODE		
07/28/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

### Office Action Summary

**Application No.**

10/562,554

**Applicant(s)**

MORI ET AL.

**Examiner**

Kevin Parendo

**Art Unit**

2823

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 May 2009.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 2 and 4-13 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1, 2 and 4-13 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/5508)  
4) ☐ Interview Summary (PTO-413)  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_  
Paper No(s)/Mail Date \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the claimed material of claims 1-12 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Objections***

2. Claim(s) 4 is/are objected to because it/they contain(s) the limitation "an electroconductivity additive" on line 2. Since this is not an accepted phrase, it is recommended to amend this limitation to "an additive that increases electroconductivity."

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-2 and 4-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

**Claim 1** recites the limitation "a step of mixing a particulate elastomer is selected from polybutadiene, polyisoprene or styrene/butadiene copolymer which is modified with carboxyl group and a carbonaceous material comprising activated carbon as an active material with each other in a powdery form, thereby obtaining a powdery mixture". The metes and bounds of this claimed limitation can not be determined for the following reasons: this limitation is a "run-on sentence" that does not effectively separate its included elements. It is unclear if "which is modified with a carboxyl group" refers to only a "styrene/butadiene copolymer", or if it refers to "polybutadiene" or "polyisoprene" as well. It is unclear what "polybutadiene, polyisoprene, or styrene/butadiene copolymer" is, and if it refers to only a "styrene/butadiene copolymer", "polybutadiene",

and "polyisoprene" individually, or if it refers to copolymers including polybutadiene or copolymers including polyisoprene. Also, what exactly is modified with a carboxyl group: only the styrene/butadiene, or any copolymer, or even only polybutadiene? It also appears that the word "that" is missing after "particulate elastomer".

Claim 1 recites the limitation "wherein the powdery mixture comprises, in 100 parts by weight thereof, 2 to 10 parts by weight of the particulate elastomer". The metes and bounds of the claimed limitation can not be determined for the following reasons: it is unclear, given the lack of a definition of the "powdery mixture", if this requires that the weight of the particulate elastomer is 2-10% of the entire weight of all of the ingredients of the mixture, or if it requires that of the weight of the particulate elastomer is 2-10% of the total weight of the particulate elastomer and the carbonaceous material. The large difference between the two options, is that the "powdery mixture" is said to possibly contain water or another solvent (paragraph 38 of published application). It is thus unclear if the weight of the water or solvent is contained in weight of the recited limitation.

**Claims 2 and 4-13** depend from claim 1 and inherit its deficiencies.

**Claim 10** recites the limitation "wherein the powdery mixture comprises, in 100 parts by weight thereof, 0.1 to 50 parts by weight of the particulate elastomer and 50 to 99.9 parts per weight of the carbonaceous material". The requirement to be 0.1 to 50 parts by weight of the particulate elastomer contradicts the requirement of 2 to 10 parts by weight as stipulated by claim 1. Thus, this claim makes it unclear exactly what the required amount of particulate elastomer is.

**Claim 13** recites the limitation "wherein the step of mixing a particulate elastomer and a carbonaceous material with each other in a powdery form is conducted in a concentration of solid contents of 50% or more by weight." The metes and bounds of the claimed limitation can not be determined for the following reasons: it is unclear what the limitation that a step "is conducted in a concentration of solid contents of 50% or more by weight" means. How can a step be conducted in a concentration? It is unclear what "a concentration of solid contents of 50% or more by weight" means.

In light of the aforementioned rejections of the claim(s) under 35 U.S.C. 112, second paragraph, the subsequent rejections under 35 U.S.C. 102 and/or 103 are based on prior art that reads on the interpretation of the claim language of the instant application as best understood by the examiner.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 1-2, 4, 7, and 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakao et al. (US 6,246,568 B1, hereinafter "Nakao") in view of Noguchi et al. (US 6,800,222 B1, hereinafter "Noguchi").

**Re claim 1**, Nakao discloses a method for producing an electrode for an electric double layer capacitor (column 1, line 16), comprising:

- a step of mixing a particulate elastomer [that] is selected from polybutadiene, polyisoprene or styrene/butadiene copolymer which is modified with carboxyl group ("carboxy denatured styrene butadiene copolymer", column 18, lines 20-28) and a carbonaceous material comprising activated carbon as an active material ("activated carbon", column 18, line 33) with each other in a powdery form, thereby obtaining a powdery mixture (the particles are dispersed in water in an emulsion, see column 18, lines 20-22 and 29-33; it is later applied, dried, and formed, see column 22, lines 8-11 and column 4, lines 7-16; this falls into the definition of "powdery mixture" and "powdery form" as described in this application's specification in paragraph 38, and one of ordinary skill in the art at the time of the invention would have realized this as such); and
- a step of dry-forming (column 4, lines 13-15, wherein the dried conductive electrode is wound on a separator) said powdery mixture, thereby forming an electrode layer 3 (column 3, line 28 and Fig. 1).

Nakao does not disclose that "the powdery mixture comprises, in 100 parts by weight thereof, 2 to 10 parts by weight of the particulate elastomer." However, Nakao does disclose similar values in various embodiments. For instance, in embodiment 14, the solid latex (styrene butadiene copolymer, see column 19 lines 1-27 for discussion that "latex" has a much broader definition in Nakao than natural rubber) contains 200 parts by weight to 100 parts by weight of the activated carbon (column 18, lines 52-55).

Thus, it contains 66% of these solids (200 parts solid latex / 300 total parts). This is dispersed in water at 30-70% (column 18, line 30). Thus, if it is dispersed at 30%, it constitutes a weight of  $(.66 \times .30 = .198)$  of the total weight of the water/solid mixture. Thus, it is about 20%. In embodiment 17, there are 12 parts by weight of latex and CMC-NH4 in 500 parts by weight of water (column 21, lines 36-37), or about 2.2%. The divide between latex and CMC-NH4 is not disclosed. In both cases, the amount of the latex is around 2 or around 20%. It would have been obvious to one of ordinary skill in the art at the time of invention to supply the claimed weights. The motivation to do so is to produce the predictable results of findings the most optimal concentrations given the desire to optimize the ease of handling (column 18, lines 20-23) and adhesion (column 18, lines 56-59), of which it is disclosed that the concentrations of the various ingredients are important (column 18, lines 20-23 and 56-59).

In any case, Noguchi discloses using 82% by weight of activated carbon and 8% by weight of binder (in this case, PTFE) to blend a powdery mixture (column 8, line 66 – column 9, line 13). It would have been obvious to one of ordinary skill in the art at the time of invention to add the invention of Noguchi to the invention of Nakao. The motivation to do so is that the combination produces the predictable results of forming a slurry also having 40% by weight of the above blend, and 60% by weight of NMP solvent (column 9, lines 4-6) that put the weight of the conductive fillers and activated carbons in the appropriate ranges to provide optimized rest potentials to provide optimized electrostatic capacity of the electric double layer capacitor (column 2, lines 27-52).

Regarding the claimed values of weight percentage: the Applicant has not disclosed that the claimed values are for a particular unobvious purpose, produce an unexpected result, or are otherwise critical, which are criteria that have been held to be necessary for mere dimensional limitations to be prima facie unobvious. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add the claimed values to the invention, because such a value would have been discovered during routine experimentation and optimization. See, for example, MPEP 2144.03, *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955); *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984); *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

**Re claim 2**, Nakao further discloses that the particulate elastomer is an elastomer having a crosslinked structure ("polymerized or crosslinked", column 17, line 67 – column 18, line 2).

**Re claim 4**, Nakao further discloses that the carbonaceous material further comprises an electroconductivity additive ("conductive agent", column 18, line 33, such as acetylene black or ketienblack, see column 3, line 48 column 1, line 49, and column 19, line 8).

**Re claim 7**, Nakao further discloses that the said powdery mixture has a particle diameter of 0.1 to 1000 micrometers (column 18, line 35; column 16, lines 22-31).

In any case, Noguchi discloses that the powdery mixture has a particle diameter of 0.1 to 1000 micrometers (activated carbon has a diameter of 5-30 micrometers, see column 8, line 67, and acetylene black conductivity additive has a diameter of 1 nm to

100 micrometers, see column 9, line 2). It would have been obvious to one of ordinary skill in the art at the time of invention to add the invention of Noguchi to the invention of Nakao. The motivation to do so is that the combination produces the predictable results of forming a slurry also having 40% by weight of the above blend, and 60% by weight of NMP solvent (column 9, lines 4-6) that put the weight of the conductive fillers and activated carbons in the appropriate ranges to provide optimized rest potentials to provide optimized electrostatic capacity of the electric double layer capacitor (column 2, lines 27-52).

Regarding the claimed values of diameter: the Applicant has not disclosed that the claimed values are for a particular unobvious purpose, produce an unexpected result, or are otherwise critical, which are criteria that have been held to be necessary for mere dimensional limitations to be *prima facie* unobvious. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add the claimed values to the invention, because such a value would have been discovered during routine experimentation and optimization. See, for example, MPEP 2144.03, *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955); *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984); *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

**Re claim 10**, Nakao does not further disclose that the powdery mixture comprises, in 100 parts by weight thereof, 0.1 to 50 parts by weight of the particulate elastomer and 50 to 99.9 parts by weight of the carbonaceous material. However, in embodiment 14, the solid latex (styrene butadiene copolymer, see column 19 lines 1-27

for discussion that "latex" has a much broader definition in Nakao than natural rubber) contains 200 parts by weight to 100 parts by weight of the activated carbon (column 18, lines 52-55). Thus, the particulate elastomer comprises 66% (200 parts solid latex / 300 total parts) of these solids, while the activated carbon comprises 33%. In any case, it would have been obvious to one of ordinary skill in the art at the time of invention to supply the claimed weights. The motivation to do so is to produce the predictable results of findings the most optimal concentrations given the desire to optimize the ease of handling (column 18, lines 20-23) and adhesion (column 18, lines 56-59), of which it is disclosed that the concentrations of the various ingredients are important (column 18, lines 20-23 and 56-59).

Regarding the claimed values of weight percentage: the Applicant has not disclosed that the claimed values are for a particular unobvious purpose, produce an unexpected result, or are otherwise critical, which are criteria that have been held to be necessary for mere dimensional limitations to be *prima facie* unobvious. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add the claimed values to the invention, because such a value would have been discovered during routine experimentation and optimization. See, for example, MPEP 2144.03, *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955); *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984); *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

In any case, Noguchi discloses using 82% by weight of activated carbon and 8% by weight of binder (in this case, PTFE) to blend a powdery mixture (column 8, line 66 –

column 9, line 13). It would have been obvious to one of ordinary skill in the art at the time of invention to add the invention of Noguchi to the invention of Nakao. The motivation to do so is that the combination produces the predictable results of forming a slurry also having 40% by weight of the above blend, and 60% by weight of NMP solvent (column 9, lines 4-6) that put the weight of the conductive fillers and activated carbons in the appropriate ranges to provide optimized rest potentials to provide optimized electrostatic capacity of the electric double layer capacitor (column 2, lines 27-52).

**Re claim 11**, Nakao further discloses the electrode for the electric double layer capacitor, which is obtained by a production method as claims claimed in claim 1 (see discussion of claim 1 above).

**Re claim 12**, Nakao further discloses the electric double layer capacitor, comprising the electrode as claimed in claim 11 (see discussion of claim 1 above).

**Re claim 13**, Nakao further discloses that the step of mixing a particulate elastomer and a carbonaceous material with each other in a powdery form is conducted in a concentration of solid contents of 50% or more by weight (30-70% of the weight of the water, column 18, line 30, which partially falls on the claimed range).

Regarding the claimed values of weight percentage: the Applicant has not disclosed that the claimed values are for a particular unobvious purpose, produce an unexpected result, or are otherwise critical, which are criteria that have been held to be necessary for mere dimensional limitations to be prima facie unobvious. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made

to add the claimed values to the invention, because such a value would have been discovered during routine experimentation and optimization. See, for example, MPEP 2144.03, *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955); *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984); *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

5. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakao and Noguchi, as applied to claim 4, above, and further in view of Sonobe et al. (US 6,258,337 B1, hereinafter "Sonobe").

**Re claim 5**, Nakao and Noguchi disclose the limitations of claim 4, as discussed above, but fail to further disclose a step of causing the electroconductivity additive to adhere onto a surface of said active material by mechanochemical treatment. Sonobe discloses a step of causing the electroconductivity additive to adhere onto the surface of the active material by mechanochemical treatment (kneading, column 7, line 67; this mechanical external force is a compressive or shearing force, as described in the applicant's specification on page 9). It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the kneading of Sonobe to the invention of Nakao and Noguchi. The motivation to do so is that the combination produces the predictable results of adding an electroconductivity increasing additive, and mixing it, thus increasing the conductivity (column 5, line 14) of the mixture.

**Re claim 6**, Nakao and Noguchi disclose the limitations of claim 1, as discussed above, but fail to further disclose that the powdery mixture is a mixture obtained by

fluidized bed granulation or fluidized bed multifunction mode granulation. Sonobe discloses that the powdery mixture is a mixture obtained by fluidized bed granulation or fluidized bed multifunction mode granulation (column 7, line 22-30). It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the fluidized bed granulation of Sonobe to the invention of Nakao and Noguchi. The motivation to do so is that the combination produces the predictable results of pulverizing the carbonaceous material to particles of about 30 micrometers (column 7, line 29).

6. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakao and Noguchi, as applied to claim 1, above, and further in view of Moriguchi et al. (US 2001/0051300 A1, hereinafter "Moriguchi").

**Re claims 8-9**, Nakao and Noguchi disclose the limitations of claim 1, as discussed above, but fail to further disclose that the dry-forming is press-molding (claim 8), or that the press-molding is performed inside a mold wherein a current collector is set (claim 9). Moriguchi discloses forming an electrode by using a carbonaceous powder by a dry-forming process, wherein the dry-forming is press-molding (paragraphs 110-111), and that the press-molding is performed inside a mold wherein a current collector is set (paragraphs 110-111). It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the mold containing an electrode of Moriguchi to the inventions of Nakao and Noguchi. The motivation to do so

is that the combination produces the predictable results of molding the powder to affix it to a metal foil current collector (paragraphs 110-111).

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 1-2 and 4-13 have been considered but are moot in view of the new ground(s) of rejection. The numerous amendments to claim 1 (specifying the particulate elastomer material, specifying the carbonaceous material, and specifying the weights of particulate elastomer and the powdery mixture) require different prior art references than were applied to the previous claims.

8. The drawings are still objected to, since the examiner is not persuaded by the applicants' argument (page 6-7) that they are not necessary. The passage quoted by the applicants from MPEP 608.02 is misrepresented in the arguments, and explicitly discloses before elements A through E are listed, "the office of patent application processing will make the initial decision in all new applications as to whether the drawing is necessary under the first sentence of 35 USC 113... An OPAP formality examiner should not treat an application without drawings as incomplete if drawings are not required. A drawing is not required for a filing date under 35 USC 111 and 113 if the application contains" elements A-E. This rationale clearly discusses the situation where an application that lacks drawings will not receive a filing date. This has nothing to do with the situation wherein "the nature of such subject matter admits of illustration by a drawing and the applicant has not furnished such a drawing", wherein objections that require a drawing are to be made, as discussed earlier in section MPEP 608.02.

***Conclusion***

9. Applicant's amendment changed the scope of the claims and necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Parendo, whose can be contacted by phone at (571) 270-5030 or directly by fax at (571) 270-6030. The examiner can normally be reached on Mon.-Thurs. and alternate Fridays from 7 a.m. - 4:30 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Smith, can be reached on (571) 272-1907. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kevin A. Parendo/  
Examiner, Art Unit 2823  
7/24/2009

/Hsien-ming Lee/  
Primary Examiner, Art Unit 2823